

Pressure sensitive polyacrylate adhesive

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Abstract of EP1302521

Stearic acid-containing, polyacrylate-based pressure-sensitive adhesive material which is homogeneous (with no segments larger than 5 nm) and shows an adhesion to steel of 1.5 N/cm in a layer thickness of 20 g/m², with NOTGREATER 20% change in adhesion after storage for 3 months at 50 degrees C. <??>Polyacrylate-based pressure-sensitive adhesive material (I) containing (at least) a mixture of: <??>(1) a copolymer of <??>(a) 28-93.9 wt% (meth)acrylate esters of formula (1); <??>(b) 5-35 wt% esters of formula (2); and <??>(c) 1.1-7 wt% free (meth)acrylic acid; and <??>(2) 1-10 wt% stearic acid. <??>CH₂=C(R₁)COOR₂ (1) <??>CH₂=C(R₃)COOR₄ (2) <??>R₁, R₃ = H or methyl; <??>R₂ = 1-14C linear or branched alkyl; <??>R₄ = alkyl with at least 16 C atoms, or cycloalkyl with at least 9 C atoms <??>Material (I) is homogeneous, with no segments larger than 5 nm; it shows an adhesion to steel of 1.5 N/cm in a layer thickness of 20 g/m² and the adhesion shows a change of NOTGREATER 20% after the material has been stored for 3 months at 50 degrees C. <??>An Independent claim is also included for a method for the production of (I) comprising the steps of: <??>(1) polymerizing the above monomer mixture; <??>(2) mixing the polymer with (2) 1-10 wt% stearic acid; <??>(3) adding (iii) 0.1-1 wt% of a polyfunctional thermal crosslinker which reacts with carboxylic acid and/or hydroxyl groups; and <??>(4) crosslinking the mixture.

